

WILD OCEANS AND THE FUTURE OF FISHING



Fishing is our oldest and our most intimate connection to the sea. And how we envision the future of fishing may, more than anything else, determine the future of the ocean and all its creatures, and not least of all, its ability to sustain us.

When we fish – to feed ourselves, to feed others or for recreation - we join the ocean world as an interdependent part of it, as predators. Which is what we are, by nature. But unlike other predators, we are limited only by the limits we set for ourselves. That's where conservation comes in.

Aldo Leopold said that conservation is a state of harmony between men and nature. Every other creature in the ocean knows instinctively how to relate to its environment. We alone must figure it out for ourselves. We're still trying to figure it out, and a lot hangs in the balance.

Are the oceans in crisis? I believe so. But I like the Chinese word for crisis, which is composed of two characters, one for danger and one for opportunity. Absolutely, there is danger if we surrender the oceans to industrialized fishing, fleets using mammoth trawls and multi-mile longlines to maximize catches, while killing non-target fish and other wildlife indiscriminately. There is danger if we resign the science of assessing the health of fish populations to mathematical models, rather than ecological principles. There is danger if we sacrifice wild-caught fisheries that support local fishing communities for seafood mass-produced on offshore "farms". If we zone the sea for multiple, incompatible uses, relegating wildness to marine parks, as we've done on land.

But there is also an opportunity, now – when else? - to change that future. But it means changing how we think, how we fish, and how we work together to protect fish, fishing and the wild world we share.

The Way We Think

Fish are arguably our most precious ocean resource because they are a renewable resource. But in order to sustain our interdependence, we can't think of them simply as commodities, of the ocean as a factory that produces the species we want, in the quantities we want. And we need to be honest about what's at stake. The assumption underlying our modern scale economies is constant growth, in production and demand. If we apply this assumption to the oceans, we will destroy them.

The buzzword in fisheries today, as elsewhere, is “sustainability.” But what is commonly thought of as “sustainable fishing” – whereby fish populations are reduced to and maintained at about half the numbers the ocean could support – can cause dramatic shifts in ecosystem communities. It can alter food webs, reduce biological diversity and upset the balance between predators and prey. Mismanaging ecosystems can have far greater costs - social, economic and cultural as well as ecological - than mismanaging a fishery, and it can be irreversible.

Our conventional fishery management strategies consider the productivity of each species within its own little box, rather than holistically, in the context of the entire ecosystem. As Einstein said, “You can’t solve a problem from the same consciousness that created it. You must learn to see the world anew.” And so we need to conserve and manage ocean fisheries with a new ecosystems approach, which in the simplest sense means recognizing that the ocean is not composed of species, but of relations, and to take those inter-relationships among species into account. It means that, as predators, we need to share the resource with other ocean predators.

For decades now, we’ve been “fishing down the food web”, that is, overfishing populations of high-value ocean predators, such as cod and tuna, then shifting fishing pressure to lower trophic level species, most notably small schooling prey species like herring, mackerel, and menhaden. As a result, from an ecosystem perspective, we’ve been struggling to control two trains going in opposite directions on different tracks.

As we work to restore a long list of predatory fish - and we are doing that - the demand for prey naturally increases. But the overall forage base available to them is dwindling, with many key species at historic lows, and pressures are expected to rise in the future. Wild fisheries long ago surpassed their ability to feed the world. Ironically, the explosive growth of open-ocean aquaculture as an alternative is exacerbating the problem by increasing demand for the use of wild forage fish as feed.

An ecosystems approach to fisheries management, and the concept of resource sharing, does not mean we have to stop fishing for key prey species. It *does* mean we need to fish more conservatively. It means we need to leave more forage fish in the water, to serve their critical ecological function of providing food and energy for all of life above them on the food chain, including us.

The Way We Fish

We need to change the way we fish for certain species. And by that I mean transitioning away from so-called modern, quote-unquote “efficient” methods of fishing that are wasteful and ultimately unmanageable, to safer, more selective, more sustainable fishing methods that are not only friendly to the environment, but friendlier to fishermen and fishing communities, too.

For instance, we need to phase out the use of multi-mile pelagic longlines and drift nets, gears that fish passively and kill indiscriminately.

To catch tuna and swordfish, pelagic or surface longliners set 30 or more miles of drifting mainline from which hang thousands of hooks – an underwater minefield that captures as many as 80 different species. Drift nets are walls of netting about 50 yards deep and up to a mile long that entangle big swimmers like turtles, marlin and sharks and divers like seabirds. These gears really prove Bill Gates observation that, “If you apply automation to inefficient operations, you just magnify the inefficiencies.”

The history of managing these gears in order to control the catch of numerous wanted and unwanted species has been ineffective and extremely costly, both from an economic and an environmental standpoint. Trying to conserve and protect all the many species caught in these gears, targeting some, trying to avoid others is the fisheries management equivalent of playing wack-a-mole. It requires an expanding network of area closures and a maze of gear restrictions. More than half the total catch ends up discarded, most of it dead, including juvenile tuna and swordfish. All with an enormous cost to taxpayers for managing, monitoring and enforcing. None of which has made these gears selective or sustainable.

As I said, there are economically-feasible, low-bycatch alternatives. One such method is swordfish buoy-gear. Another is greenstick gear to catch yellowfin tuna.

Swordfish buoy-gear, developed by fishermen on the Florida east coast after longlines were banned there more than a decade ago, is being tested as an alternative on the U.S. west coast – where longlines are not allowed and drift nets are under fire for entangling, among other things, critically endangered leatherback sea turtles. The gear’s also being tested in the Gulf of Mexico, where longlines kill hundreds of rare spawning bluefin tuna every year. Greenstick gear, favored by commercial tuna fishermen in the mid-Atlantic region, is also part of a pilot study in the gulf.

The advantages of buoy gear over longlines and drift nets are many. High catch rates for swordfish with very minimal bycatch. The gear is actively tended so fish are retrieved upon hook-up, what little bycatch there is can be released alive and the hooks re-baited to keep fishing. It provides fresher, higher quality swordfish. East coast fishermen are working with retail chains, like Whole Foods, to get higher prices for their “sustainable” product.

Here’s what the U.S. government said after negotiating an agreement with Morocco last year to quit drift netting in the Mediterranean and experiment with buoy gear. “If effective in Moroccan fisheries, this gear type potentially offers a small-scale, high-yield, locally supplied solution as an alternative to drift nets. By sharing this technology, we can support Morocco’s efforts to eradicate drift nets, an action that has many benefits for the marine environment.”

Fishermen want to fish, consumers want local, fresh seafood. A small-scale, high-yield, locally-supplied solution sounds just right.

Unity

Finally, we – all of us - need to expand our circle of concern. Ocean fish conservation, like wildlife conservation on land, was pioneered by fishermen. We need more fishermen to be passionate protectors of fish and their environment. Likewise, we need more of the non-fishing public to recognize that fish are wild creatures as magnificent as any on earth, and that they need wild places. And we need more conservation-minded fishermen and pro-fishing environmentalists to join together to keep the oceans wild to preserve fishing opportunities for the future.



*This briefing paper was prepared by **Wild Oceans**, , an independent non-profit group of anglers dedicated to protecting the ocean's top predators – the billfish, tunas, swordfish, and sharks – while preserving healthy ocean food webs and critical habitats essential to the survival of all fish, marine mammals, sea turtles and seabirds.*



For more information visit wildoceans.org or call (703) 777-0037.